

# THE IBIS.

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## SIXTH SERIES.

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XL.—*On Birds collected or observed in the Vicinity of Foochow and Swatow in South-eastern China.* By JOHN D. DE LA TOUCHE.—Part II.\* (Communicated by H. H. SLATER, F.Z.S.)

(Plate XII.)

### II. PICARIÆ.

137. *CYPSELUS PACIFICUS*, Lath. (?). [111.]

Foochow. De la Touche, Ibis, 1887, p. 469.

Swifts with white on the rump, and probably of this species, were seen and shot at by my shooting-men on the Foochow coast at the beginning of June.

138. *CYPSELUS SUBFURCATUS*, Blyth. [112.]

This little Swift is found in summer near Swatow. It nests on the village houses up the Keyong River, and appears to be fairly common there.

Two eggs obtained in April measure 24·5 and 24·3 millim.

+ 139. *CAPRIMULGUS JOTAKA*, T. & S. [107.]

Foochow. Styan, Ibis, 1887, p. 228.

140. *LYNX TORQUILLA*, Linn. [88.]

Foochow. Styan, Ibis, 1887, p. 229.

A winter bird at Swatow. It is more common in the spring.

\* For Part I. see above, p. 400.

† 141. *PICUS CABANISI*, Malh. [73.]

Foochow. Styan, Ibis, 1887, p. 229.

Very common. In February 1884, while up river, I came upon a regular gathering of Woodpeckers in an orchard-like grove close by the river-bank. The trees being quite bare of leaves, a good view could be had of the birds as they ran up the trees in all directions. I shot specimens of this and the two following species, all three species being abundant. I never again saw so many Woodpeckers together.

[It was possibly occasioned by a visitation of some particular larva of an insect to the grove.—II. H. S.]

142. *IYNGIPICUS SCINTILLICEPS*, Swinh. [79.]

Foochow. Styan, Ibis, 1887, p. 229.

Not uncommon on the hills.

Though I did not note this and the preceding species at Swatow, I have no doubt that they occur there also.

† 143. *GEVINUS GUERINI* (Malh.). [83 & 84.]

Foochow. Styan, Ibis, 1887, p. 229.

This is the commonest Woodpecker in the Foochow district. It also occurs on the Swatow hills.

† 144. *MICROPTERNUS FOKIENSIS*, Swinh. [85.]

Foochow. Styan, Ibis, 1887, p. 229.

One was shot by my boy in the hill-country west of Swatow.

145. *UPUPA EPOPS*, Linn. [144.]

Foochow. Styan, Ibis, 1887, p. 229.

Appears in winter at Foochow, but is very scarce.

† 146. *MEROPS PHILIPPINUS*, Linn. [117.]

This Bee-eater arrives at Swatow in April, and is very common during the summer in the rocky valleys.

† 147. *EURYSTOMUS ORIENTALIS* (Linn.). [119.]

*Eurystomus orientalis*, Swinh. P. Z. S. 1871, p. 347; Styan, Ibis, 1887, p. 229.

This Roller, which is abundant in the Foochow district in

summer, does not occur in the immediate neighbourhood of Swatow, but my boy shot one up the Keyong River on the 2nd May. No doubt it breeds there.

148. *ALCEDO BENGALENSIS* (Briss.). [120.]

Foochow. Styan, Ibis, 1887, p. 230.

Abundant and resident at Foochow and Swatow.

I kept some young birds in a cage with gauze sides for some weeks, feeding them on fish, which, after a while they learnt to pick up themselves out of a plate at the bottom of the cage. But as soon as they could feed themselves they became very wild, and, their piercing screams in the early morning making them an intolerable nuisance, I let them go.

Mr. Baun, who once noticed some natives catching this Kingfisher, told me that when the bird had been deprived of its back feathers it was let go again, but with a distinguishing mark attached to it, to prevent a needless second capture.

The feathers of *Halcyon smyrnensis* are also largely used in China for making the feather ornaments so much in use among the native women, but those of *H. pileatus* are not appreciated.

149. *CERYLE RUDIS* (Linn.). [124.]

Foochow. Styan, Ibis, 1887, p. 230.

Abundant and resident at Foochow and Swatow.

150. *CERYLE GUTTATA*, Vig. [125.]

Foochow. Styan, Ibis, 1887, p. 230.

Seen by my shooting-boy in the hill-country west of Swatow.

151. *HALCYON SMYRNENSIS* (Linn.). [122.]

Foochow. Styan, Ibis, 1887, p. 280.

Common and resident at Foochow and Swatow.

152. *HALCYON PILEATUS* (Bodd.). [121.]

Foochow. Styan, Ibis, 1887, p. 230.

Not uncommon at Foochow in spring and from the end of

August to the beginning of October. It occurs also sparingly in winter.

I have seen this Kingfisher at Swatow about the lagoons.

153. *CUCULUS CANORUS*, Linn. [104.]

Foochow. Styan, *Ibis*, 1887, p. 230.

Shot near Swatow in April.

154. *CUCULUS MICROPTERUS*, Gould. [108.]

Foochow. Styan, *Ibis*, 1887, p. 230.

Shot near Swatow in September.

155. *CUCULUS SPARVERIOIDES*, Vig. [101.]

Shot on Taiyang hills west of Swatow in April.

156. *EUDYNAMIS MACULATA* (Gm.). [115.]

Common in summer on the Swatow plain, arriving about April and remaining till the end of September. It frequents the banyans and other large trees planted about the villages and farm-houses.

157. *CACOMANTIS TENUIROSTRIS* (J. E. Gray). [99.]

Common at Swatow in the spring, and I presume that they remain throughout the summer. They frequent the gardens on the Foreign Settlement and the mangrove marshes. Their plaintive and most irritating cry is constantly heard during the spring, but the birds, being very shy, are seldom seen.

158. *CENTROPUS SINENSIS*, Steph. [93.]

Foochow. Styan, *Ibis*, 1887, p. 230.

Resident and very common at Foochow and Swatow.

One, which I bought as a nestling at Foochow on 26th August, 1886, and reared, lived in confinement for over eighteen months. It fed on raw meat and dried "water-boatmen," and was also fond of small birds. The adult plumage was assumed in the following summer, and began first to show in patches in the early spring.

159. *CENTROPUS BENGALENSIS* (Gm.). [94.]

Foochow. Styan, *Ibis*, 1887, p. 230.

Rare on the Foochow hills, but common enough on those to the west of Swatow.



+ 160. *MEGALÆMA VIRENS*, Bodd. [89.]

Foochow. Styan, *Ibis*, 1887, p. 230.

Not uncommon on the Foochow and Swatow hills.

An adult female example obtained near Swatow at the end of February had the tertiaries of a warm cinnamon colour. The rest of the plumage was normal.

N.B.—Mr. Baun's boy procured him a specimen of a Barbet, which he assured us had been shot near his native place, a city about twelve miles S.E. of Foochow. He told us that ten examples had been shot altogether, but that the bird was very rare and only a summer visitant.

Being unable to go to the place myself, I sent my shooting-boy and taxidermist there at the end of September, but they failed to procure me a specimen, and the natives could give them no information on the subject. Mr. Baun sent his bird at once to Professor Collett, but I did not hear anything more about it.

As it *may* be true that the bird was really shot in the locality stated by the man, and not brought, as I at first suspected, from foreign lands, I give here a rough description of it:—

*Size* small; *bill* (dried) bluish black; *general colour of body* bright green; *crown of head* bright red; a broad blue *eyebrow*; some red on the *lores*; a yellow spot behind the *ears*; *throat* bright blue; and a bright crimson spot on either side of *breast*.

[This looks very like *M. versicolor*, a common Indo-Malayan species, and the whole affair like a Celestial fraud.—H. H. S.]

### III. STRIGES.

161. *BUBO IGNAVUS* (Forster). [58.]

Foochow. De la Touche, *Ibis*, 1887, p. 469.

An adult specimen was shot since by the native wildfowler Tsung-yang at Foochow.

162. *SCOPS GLABRIPES*, Swinh. [64.]

*Scops elegans*, Styan, *Ibis*, 1887, p. 230 (nec Cassin).

Foochow. April, June, July, and November.

A nestling bought on 3rd June, 1885, was successfully reared, and after travelling about with me in China from post to post, was brought to Europe and lived over a year in France. When I came over to England in July 1891, I gave it to the Zoological Society's Gardens, where it died about a week afterwards\*.

This bird was always wild when strangers were present, but when alone with me it was extremely tame and even affectionate.

It preferred insect food to any other, but would also eat birds, rats, mice, and butcher's meat.

163. *GLAUCIDIUM WHITELYI* (Blyth). [55.]

Foochow. Styan, *Ibis*, 1887, p. 231.

Very common and resident at Foochow and Swatow.

I have also had several live specimens of this Owl at different times. They are easy to keep in confinement, and eat freely.

One, which I had shot at and wounded one morning while out shooting, deceived me by lying motionless on my hand, till, thinking it was dying, I put it out of pain, as I believed, and laid it in my collecting-basket, where it remained motionless till the evening. On taking out the day's captures to examine them this bird jumped out, to my surprise. It lived for over a year after that, in apparently good health.

164. *GLAUCIDIUM BRODIEI* (Burt.). [56.]

This Owl must occur not far west of Foochow. It was obtained by Swinhoe in the Tingchow mountains and by Mr. Baun at Puch'eng.

165. *NINOX SCUTULATA* (Raffl.). [53.]

Foochow. Styan, *Ibis*, 1887, p. 231.

Not uncommon in May. Rather common at Swatow in April.

I have had several live specimens. They stood confinement well, eating butcher's meat, birds, &c. freely. A pellet cast up by one on the day following its capture consisted of remains of beetles and small mammals (bats or mice).

[\* Recorded as *Scops semitorques*, P. Z. S. 1891, p. 669.—ED.]

+ 166. *ASIO ACCIPITRINUS* (Pall.). [62.]

Foochow. Styan, Ibis, 1887, p. 231.

Seen once on the Swatow plain in February.

IV. *ACCIPITRES.*

167. *PANDION HALIAËTUS* (Linn.). [19.]

Foochow. Styan, Ibis, 1887, p. 231.

Resident at Swatow. Eggs were obtained on the coast in the beginning of summer.

+ 168. *CIRCUS CYANEUS* (Linn.). [39.]

Foochow. Styan, Ibis, 1887, p. 231.

Females and young males are very common about Swatow during the winter.

I obtained only one adult male during the five and a half years I spent in the south.

169. *CIRCUS MELANOLEUCUS* (Forster). [42.]

Foochow. Styan, Ibis, 1887, p. 231.

This Harrier seems to be very rare in the south. At Newchwang, in South Manchuria, it is not uncommon.

[Yet, curiously, it is very common in British Burmah.—H. H. S.]

+ 170. *CIRCUS SPILONOTUS*, Kaup. [43.]

Foochow. Styan, Ibis, 1887, 231.

Common at Swatow from the autumn to the spring.

171. *CIRCUS ÆRUGINOSUS* (Linn.). [44.]

Foochow. Styan, Ibis, 1887, p. 231.

Abundant at Swatow on marshes and lagoons all through the cool season.

+ 172. *BUTEO PLUMIPES* (Hodgs.). [26.]

Foochow. Styan, Ibis, 1887, p. 231.

Common at Swatow in winter.

+ 173. *AQUILA HELIACA*, Savigny. [11.]

Foochow. Styan, Ibis, 1887, p. 232.

A live example procured at Foochow by Mr. G. Siemssen, of Foochow, which I kept at Swatow for over a year, is now living in the Zoological Society's Gardens.

[Mr. de la Touche informs me that all the examples he has seen have been immature birds.—H. H. S.]

174. *AQUILA NÆVIA*, Briss. [13.]

I shot a Lesser Spotted Eagle on the lagoons just behind Swatow on 20th March, 1887, and saw another Eagle in the spring of 1888, and two on the coast in the beginning of February 1889, which I believe were of the same species.

Père David considers this species to be the rarest of the Eagles of China.

[Mr. Styán (Ibis, 1891, p. 487) considers the Spotted Eagles of the Yangtse basin to be *A. clanga*; Père David and Mr. de la Touche put them down as *A. nævia*. They seem to have been oftener seen than obtained. One would expect *A. clanga* to occur in the north of China, and *A. hastata* to be the southern form. Messrs. de la Touche and Styán will do well, on their return to China, to devote some attention to this question.—H. H. S.]

- 175. *NISAËTUS FASCIATUS* (Vieill.).

Foochow. Styán, Ibis, 1887, p. 232.

+ 176. *HALIAËTUS ALBICILLA* (Linn.). [15.]

I saw a good many Sea-Eagles at Foochow in the autumn of 1886, which were probably of this species. Most of them were flying high overhead, and evidently going south, but several were seen about the river, some of them at fairly close quarters. Neither I nor any of the men who used to shoot for me were able to obtain a specimen.

A Sea-Eagle seen on the Swatow coast on 24th July was probably either this Eagle or an immature *H. leucogaster*.

177. *HALIAËTUS LEUCOGASTER* (Gm.).

Foochow. Styán, Ibis, 1887, p. 232.

The immature example mentioned by me (Ibis, 1887, p. 469) as being perhaps *H. albicilla* turned out to be an immature *H. leucogaster*. It was shot on the 2nd November. I saw a Sea-Eagle at Pagoda anchorage in July 1886, which was also, I believe, of the same species.

+178. *SPILORNIS CHEELA* (Lath.). [30.]

Foochow. Styan, Ibis, 1887, p. 233.

+179. *BUTASTUR INDICUS* (Gm.). [25.]

Foochow. Styan, Ibis, 1887, p. 233.

+180. *ASTUR PALUMBARIUS* (Linn.). [33.]

One shot on the hills west of Swatow in January.

+181. *ACCIPITER NISUS* (Linn.). [38.]

Foochow. Styan, Ibis, 1887, p. 233.

I must have overlooked the Sparrow-Hawk at Swatow, as I find I have not noted it as occurring at that port. It is probably found on the wooded hills.

182. *ACCIPITER NISOIDES*, Blyth. (See J. H. Gurney, Ibis, 1887, p. 362.) [? 37.]

*Accipiter virgatus*, Styan, Ibis, 1887, p. 233.

Foochow ; spring and autumn. Swatow ; two live specimens obtained in spring.

+ 183. *FALCO PEREGRINUS*, Tunst. [47.]

Foochow. Styan, Ibis, 1887, p. 233.

Common at Swatow throughout the cool season.

A Peregrine attended me on several occasions while shooting on the sands near the mouth of the River Min, and once struck a bird not far from me which I had slightly wounded. Another, near Swatow, nearly carried off a wounded Teal which was making off. It only succeeded in ripping it up, striking the bird as it was scrambling up a muddy bank in front of us.

+184. *FALCO SUBBUTEO*, Linn. [48.]

Foochow. Styan, Ibis, 1887, p. 233.

Obtained from Taiyang hills, Swatow, in April, and noticed near Swatow in autumn.

+185. *FALCO REGULUS*, Pall. [49.]

Foochow. Styan, Ibis, 1887, p. 233.

Obtained in winter in the hill country west of Swatow.



186. *FALCO TINNUNCULUS*, Linn. [52.]

Foochow. Styan, *Ibis*, 1887, p. 233.

Abundant at Foochow and Swatow during the cool season. A Kestrel which had established itself in the open verandah of the Customs Bungalow at Double Island, near Swatow, seemed to live altogether upon fish, judging from the castings which strewed the floor under its night-quarters. It probably stole them from the fishermen near at hand.

187. *MICROHIERAX MELANOLEUCUS*, Blyth. [45.]

*Microhierax sinensis*, Styan, *Ibis*, 1887, p. 234.

*Microhierax chinensis*, de la Touche, *Ibis*, 1887, p. 470.

Mr. Seebohm (P. Z. S. 1891, p. 345) considers that "the validity of this species (*M. chinensis*, A. Dav.) must be regarded as very doubtful;" and Mr. H. H. Slater, who compared one of my specimens with those in the British Museum, was unable to detect any difference between it and those from Assam.

This little Hawk is doubtless a resident in the Foochow district, but as yet has been found only some way up the river. It was obtained by Père David in Kiangsi, and Père Heude told me that he knew of a place (in Kiangsi, I believe) where the bird was common.

188. *MILVUS MELANOTIS*, T. & S. [21.]

Foochow. Styan, *Ibis*, 1887, p. 234.

Also abundant at Swatow. Three eggs were taken from a nest, which was placed on a rock at Double Island, in early spring.

189. *HALIASTUR INDUS* (Bodd.). [20.]

Foochow. Styan, *Ibis*, 1887, p. 234.

## V. STEGANOPODES.

190. *PELECANUS PHILIPPENSIS*, Briss. [769.]

Common on the Foochow coast near the mouth of the River Min all through the summer. There are flocks of them always on or about the Meihua sands. I have never heard of Pelicans occurring in the Foochow district in winter.



These Pelicans may be seen all summer in the Swatow bay, sitting on the fishing-stakes, and I have occasionally met with a small flock in winter on the Swatow coast.

They probably breed near the above-mentioned localities, but I was never so fortunate as to find any of the breeding-places.

† 191. PHALACROCORAX CARBO (Linn.). [770.]

Common at Foochow and Swatow throughout the winter and spring.

At Foochow the Cormorant is employed for fishing purposes. I once met a couple of men who were fishing with Cormorants. They were on a narrow raft made of four or five bamboos, the front ends of which were curved upwards. In the middle of the raft there was a basket for holding the fish; the birds sat on the edge of the raft in front, and the owner stood up behind, armed with a long bamboo, which he used for paddling himself down the stream. The Cormorants had wisps of straw, or some such material, round their necks, instead of rings, to prevent them from swallowing the fish.

192. ATTAGEN MINOR (Gm.). [772.]

One seen on the Foochow coast in July. It is occasionally observed at Swatow in the summer. I once saw one in the bay, not far from the harbour. A young male shot on the Swatow coast on 24th July measured 739 millim. *Iris* brown; *bill and pouch* light bluish grey; *eyelids* grey, with a black streak along them; *feet* light bluish pink.

## VI. HERODIONES.

† 193. ARDEA CINEREA, Linn. [626.]

Resident. Common at Foochow and Swatow in winter. At Foochow during the summer I saw them only on the coast. My men told me of a place where they breed, not far from the mouth of the River Min. I did not note their summer-quarters at Swatow, but I have no doubt that they breed there also.

## 194. ARDEA PURPUREA, Linn. [627.]

Occasionally seen near Foochow in April, and once obtained in October.

## 195. HERODIAS ALBA (Linn.). [628.]

Passes Foochow and Swatow in spring and autumn. Specimens shot in October had entirely yellow bills; others shot in March and April had dark green bills; but two females, shot on 24th March and 14th April, had yellow bills, tipped with green. I shot a young bird at Foochow on the 26th of August.

## 196. HERODIAS INTERMEDIA, Wagl. [629.]

Seems a rare bird both at Foochow and Swatow. One shot at Foochow on the 7th of May measured 740 millim.; soft parts as follows:—*iris* pale yellow; *bill* yellow, with dark green tip; *skin at base of bill* bright yellow; *legs and feet* black.

## † 197. HERODIAS GARZETTA, Linn. [630.]

Abundant at Foochow from the middle of March to the autumn. A few winter in the district. At Swatow it occurs commonly throughout the winter, but disappears during the summer.

## 198. HERODIAS EULOPHOTES, Swinh. [631.]

This bird is a rarity at Foochow, where I only obtained a few specimens one year in April and May. I suppose that it breeds in the district; but though I have looked out for it in summer, I never saw any.

At Swatow it is very abundant during the summer, but goes south for the winter.

The colours of the soft parts in this species are as follows:—*iris* pale yellow; *bill* yellow; *skin between the eye and nostril* bright blue; *legs and basal half of feet* black; *extremities of feet* yellow; *claws* greyish red.

## 199. BUBULCUS COROMANDUS (Bodd.). [632.]

Abundant at Foochow and Swatow during the summer.

## 200. ARDEOLA PRASINOSCELES, Swinh. [635.]

Very common and resident at Foochow and Swatow.

At Foochow, during the autumn, small parties, composed of young birds or adults in winter plumage, frequent the paddy-fields and the banks of ponds and creeks. In winter they are found singly about ponds or the banks of creeks.

✓ 201. *ARDETTA FLAVICOLLIS* (Lath.). [639.]

Abundant at Foochow during the summer. Not noticed (probably overlooked) at Swatow.

I did not notice this Heron congregating together for breeding purposes, but I believe that they nest here and there on large trees not far from the villages.

✦ 202. *ARDETTA SINENSIS* (Gm.). [642.]

Foochow and Swatow in summer.

✓ 203. *ARDETTA CINNAMOMEA* (Gm.). [640.]

Abundant at Foochow in autumn. I did not see it there either in the spring or during the summer. I obtained specimens at Swatow in spring.

✦ 204. *ARDETTA EURHYTHMA*, Swinh. [641.]

A few obtained at Foochow in autumn.

✦ 205. *BUTORIDES JAVANICUS* (Horsf.). [633.]

Swatow in spring and probably also at Foochow; but I never obtained any in the latter district, though my shooting-boy told me that he had seen this bird on the marshy islands at the mouth of the River Min.

✦ 206. *NYCTICORAX GRISEUS* (Linn.). [634.]

Common and resident at Foochow and Swatow.

There are many heronries round about Foochow. Generally they are placed near a village, and the natives, probably from some superstitious motive, will not allow them to be interfered with. I once was allowed to visit one of these places, but not until I had promised not to disturb the birds. This heronry was established on a clump of pine-trees which covered a hillock overtopping the village. The nests were placed on the summits of the pines, and numbers of Herons were flying about or sitting on the nests. The species noticed were *N. griseus*, *Herodias garzetta*, and *Bubulcus coromandus*.

207. *BOTAURUS STELLARIS* (Linn.). [638.]

Foochow in winter; rather uncommon.

208. *IBIS MELANOCEPHALA* (Lath.) (?). [648.]

According to the Foochow wildfowlers, a white Ibis occurs on the Foochow coast in autumn and spring. My shooting-boy told me that he saw one on the Swatow coast on the 31st of December.

209. *TANTALUS LEUCOCEPHALUS*, Gm. [647.]

Summers on the Foochow coast. It is occasionally seen in couples on the mud- or sand-banks near the mouth of the River Min.

I saw a good many on the marshes near Swatow in September 1887.

210. *PLATALEA MINOR*, T. & S. [646.]

Foochow coast in summer and autumn. It is common in the neighbourhood of Swatow all through the winter.

## VII. ANSERES.

211. *CYGNUS*, sp. inc.

Swans have been shot near Foochow, but appear to be very rare in the district. I did not see any there or at Swatow, but my shooting-boy told me that he saw two on the Swatow coast on the 31st December.

212. *ANSER SEGETUM* (Gm.). [702.]

Abundant at Foochow and Swatow in winter. The Geese arrive at Swatow about the end of November and have left before the end of February. They arrive at Foochow towards the end of October.

213. *ANSER ERYTHROPUS* (Linn.). [705.]

Foochow wildfowlers have told me that they had occasionally shot small Geese, which, from their description, appear to have been of this species.

214. *ANSER CINEREUS*, Meyer. [703.]

Foochow wildfowlers have told me that they have also shot this Goose.

✦ 215. *ANSER CYGNOIDES*, Linn. [706.]

A Goose, of which the description answers to that of the Swan-Goose, was shot at Foochow by my shooting-boy.

This and the two preceding species are evidently rare at Foochow. For my own part, the only Geese I ever saw or shot either at Foochow or at Swatow were Bean-Geese.

✦ 216. *NETTAPUS COROMANDELIANUS* (Gm.). [718.]

Three examples obtained in October and November at Foochow. It seems to be rather rare in the district.

✦ 217. *TADORNA CORNUTA* (Gm.). [712.]

Winters at Foochow, where it is rather uncommon. It is abundant about Swatow, large flocks being seen in the bay during the winter.

✦ 218. *CASARCA RUTILA* (Pall.). [713.]

I obtained one specimen at Foochow in November 1884. It is a very rare Duck in that locality.

✦ 219. *ANAS BOSCAS*, Linn. [710.]

Foochow and Swatow in winter.

✦ 220. *ANAS ZONORHYNCHA*, Swinh. [711.]

Resident at Foochow and Swatow; fairly abundant in winter. I found nests and eggs on a rocky islet outside the Swatow Bay in May and June, and some eggs on the point of hatching were taken in July, the young ducklings coming out of the shell in the boat. The nests I found were hidden among the low brushwood and rank grasses on the summit of the island.

✦ 221. *QUERQUEDULA CRECCA* (Linn.). [721.]

Very abundant at Foochow and Swatow in winter. They arrive at Foochow at the end of September. Most of them leave in March, but very few being seen in April.

Numbers of this and the following three species are netted in the Foochow district and sold alive for food. The nets employed to catch them have rather wide meshes; they are set upright across the marshy islands in the river; the birds flying low at night are caught by the neck, and the natives, who are on the watch, secure them at once.



222. *QUERQUEDULA CIRCIA* (Linn.). [720.]

Abundant at Foochow from the end of February to the late spring. They pass again towards the middle of September, but not in such numbers. This Teal also passes Swatow in spring and autumn.

I procured at Foochow a beautiful semi-albino variety of this species. It is very pale, and suffused all over with a pinkish tinge. The soft parts were as follows:—*iris* brown; *bill* dark pink; *legs* flesh-colour; *webs* tinged with blue.

223. *EUNETTA FALCATA* (Pall.). [723.]

Common in winter at Foochow and Swatow. Especially abundant in the spring. One shot at Foochow as late as 30th April.

224. *EUNETTA FORMOSA* (Georgi). [722.]

Abundant in winter at Foochow. Occurs also in winter at Swatow.

225. *DAFILA ACUTA* (Linn.). [714.]

Common at Foochow and Swatow throughout the winter.

226. *MARECA PENELOPE* (Linn.). [715.]

Winters at Foochow and remains till the beginning of May. Common at Swatow in winter.

227. *SPATULA CLYPEATA* (Linn.). [717.]

A common winter Duck at Foochow and Swatow; remains late at Foochow.

+ 228. *AIX GALERICULATA* (Linn.). [719.]

Occasionally shot near Foochow. It is said by the local wildfowlers to be common on the river near Yen-ping-fu.

229. *FULIGULA CRISTATA* (Steph.). [731.]

Common at Foochow in winter.

230. *FULIGULA MARILA* (Linn.). [729.]

Abundant at Foochow in winter. I did not shoot any Sea-Duck at Swatow, but I have no doubt that most of the Chinese species are to be found there, either in the bay or on the coast.

The Swatow Ducks are generally very bad eating; but

those shot near Foochow are usually very good. As for the Geese, at both ports they are as a rule excellent.

231. *FULIGULA FERINA* (Linn.). [727.]

Foochow; only one specimen obtained.

232. *CLANGULA GLAUCION* (Linn.). [725.]

Foochow; only once obtained.

233. *MERGUS MERGANSER*, Linn. [734.]

Said by natives to be common up the River Min in the Yen-ping-fu district.

234. *MERUS SERRATOR*, Linn. [736.]

Abundant at Foochow and Swatow in winter. Generally seen in small flocks of from six to eight individuals.

235. *MERGELLUS ALBELLUS* (Linn.). [733.]

Foochow. One shot on 23rd December, 1887.

### VIII. COLUMBÆ.

† 236. *CHALCOPHAPS INDICA* (Linn.) (?). [555.]

Some green Pigeons, probably of this species, were shot by Professor Poliakoff, a Russian naturalist, in 1884, on the hills near the mouth of the River Min, Foochow. I was unable to procure a specimen.

† 237. *TURTUR RUPICOLA* (Pall.). [558.]

Foochow and Swatow. Common on the hills.

238. *TURTUR CHINENSIS* (Scop.). [559.]

Abundant at Foochow and Swatow.

† 239. *TURTUR HUMILIS* (Temm.). [561.]

Foochow and Swatow. It is migratory, many breeding in the Foochow district on the tall pines. A few remain there in winter.

### IX. GALLINÆ.

240. *PHASIANUS TORQUATUS*, Gm. [590.]

Pheasants are tolerably common on the hills near Foochow and Swatow, but good shooting can only be had at a certain distance from the ports.

241. *EUPLOCAMUS NYCTHEMERUS* (Linn.). [598.]

Said to be not uncommon on the Yen-ping-fu hills west of Foochow. A Foochow shooting-man told my men he had met with this species.

+ 242. *CERIORNIS CABOTI*, Gould. [601.]

A live Tragopan was brought down to Foochow one winter. This species has never to my knowledge been shot near Foochow; but I suspect that it may occur not very far west of that city, probably on the Yen-ping-fu hills.

+ 243. *FRANCOLINUS CHINENSIS* (Briss.). [579.]

Foochow and Swatow hills. Kept by Chinese bird-fanciers in small bamboo cages.

+ 244. *BAMBUSICOLA THORACICA* (Temm.). [569.]

Foochow hills, and, according to my shooting-boy, also found in the hills west of Swatow, but much less common there than at Foochow.

This Partridge is also a favourite cage-bird with the Chinese. The call, when heard at close quarters, is perfectly diabolical.

+ 245. *COTURNIX COMMUNIS*, Bonnat. [573.]

Common enough at Foochow and Swatow during the cool season.

+ 246. *TURNIX BLANFORDI*, Blyth. [576.]

Winters at Foochow, but not in any great abundance.

+ 247. *EXCALFACTORIA CHINENSIS* (Linn.). [574.]

A pair of this beautiful little Quail was obtained by my shooting-boy in the country west of Swatow, in January.

+ 248. *RALLUS INDICUS*, Blyth. [699.]

Foochow and Swatow in winter, but not particularly common.

- 249. *PORZANA ERYTHROTHORAX* (T. & S.). [695.]

Summers at Foochow, and obtained there till the middle of November. Shot near Swatow in April.

Four young birds in down were brought to me at Foochow on the 29th September, 1885. They were jet-black, with

reddish-black legs. The bill was pinkish at the base, black in central part, and pink at the tip. One of them was yet alive, but, though it ate a little boiled rice, it died next morning. Its cry was like that of a chicken in down, varied now and then by a plaintive trill.

250. *PORZANA PYGMÆA* (Kaup). [696.]

Procured at Foochow in March, April, and November.

251. *GALLINULA COCCINEIPES*. (Plate XII.)

Two examples of this new species were shot by my shooting-boy. One, the female described by Mr. Slater ('Ibis,' 1891, p. 44), was shot on the banks of a mountain-torrent in the interior, to the west of Swatow; the male was obtained in the Taiyang hills.

Père Heude, when he showed me the specimen of this species in the Sikawei Museum, told me that it had been given to him by Swinhoe.

+252. *GALLINULA CHLOROPUS* (Linn.). [693.]

Common at Foochow in spring.

+253. *ERYTHRA PHÆNICURA* (Forst.). [694.]

Resident and abundant at Foochow and Swatow.

+254. *GALLICREX CINEREA* (Gm.). [692.]

Very common at Foochow throughout the hot season.

+255. *FULICA ATRA*, Linn. [700.]

Foochow and Swatow in winter; not particularly common.

+256. *GRUS CINEREA*, Bechst. [620.]

Small flocks of this Crane occur near Swatow during the winter. Foochow native wildfowlers say that it is found in the Foochow district, and some of them have assured me that they have also seen white Cranes (*G. leucogeranus*?).

+257. *HYDROPHASIANUS CHIRURGUS* (Scop.). [690.]

Obtained at Foochow in spring in partial breeding-plumage and in October in winter plumage.

## X. GRALLÆ.

+258. *GLAREOLA ORIENTALIS*, Leach. [617.]

Passes Foochow in April and May. Obtained also during

the autumn migration on the 19th of August, the 2nd of September, and in October. It is not a common migrant. I believe that I saw some near Swatow in September.

259. *VANELLUS CRISTATUS*, Mey. & Wolf. [604.]

Common at Foochow and Swatow during the winter.

+ 260. *CHETTUSIA CINEREA* (Blyth). [605.]

Occurs occasionally at Foochow in the spring.

261. *SQUATAROLA HELVETICA* (Linn.). [607.]

Common at Foochow and Swatow during migration time.

A few winter on the coast.

262. *CHARADRIUS FULVUS*, Gm. [608.]

Very abundant at Foochow in April and at the beginning of May. It passes again in October, but at that season seems to be less common. It winters at Swatow.

263. *ÆGIALITIS VEREDUS* (Gould). [609.]

Rather scarce. It passes Foochow in March. I shot one at Swatow on the 23rd October out of a flock of Golden Plover.

264. *ÆGIALITIS GEOFFROYI* (Wagl.). [610.]

Passes Foochow in April and May, and again from the end of July to, at least, the end of September. I saw very large flocks on the sands near the mouth of the River Min on the 26th of July, 1886; those shot were all in winter plumage.

265. *ÆGIALITIS MONGOLICA* (Pall.). [611.]

Rather abundant at Foochow in April and May. I shot it also on the coast in September.

266. *ÆGIALITIS PLACIDA* (Gray). [612.]

Foochow in winter. Rather rare.

267. *ÆGIALITIS MINOR* (Mey. & Wolf). [614.]

Passes Foochow from the beginning of March to the beginning of May. It winters at Swatow.

268. *ÆGIALITIS CANTIANA* (Lath.). [615.]

Common in winter at Foochow and Swatow.



† 269. *ÆGIALITIS DEALBATA*, Swinh. [616.]

Swatow in summer, and probably resident. I found two eggs on a low sand-bank at the beginning of June. One of them was addled, and the other was on the point of hatching. The markings of the former resembled those of the eggs of *Sternula sinensis*; the latter was deep yellow, pencilled all over with numerous brown streaks. There was no nest of any kind, but only a little round hollow in the sand. The egg is 33 millim. in length.

† 270. *STREPSILAS INTERPRES* (Linn.). [619.]

Passes Foochow in September and October. I shot a male, still in breeding-plumage, at Swatow on the 12th of September.

† 271. *HÆMATOPUS OSCULANS*, Swinh. [618.]

Not uncommon at Foochow and Swatow in winter.

† 272. *RECURVIROSTRA AVOCETTA*, Linn. [660.]

Very scarce at Foochow. Two were shot on the coast in the middle of February 1887 by a native wildfowler, who told me that the species was unknown to him. At Swatow the Avocet is not uncommon during the winter.

† 273. *HIMANTOPUS CANDIDUS*, Bonnat. [661.]

The Stilt is rare at Foochow. I procured specimens in March 1885, on the 20th of October, 1885, and on the 18th of April, 1886.

† 274. *LOBIPES HYPERBOREUS* (Linn.). [689.]

Two examples of this Phalarope were sent to me from Foochow by the native wildfowler Tsung Yang. I once saw a Phalarope in Swatow bay at the beginning of September; and when travelling down the coast at the beginning of April 1890 I noticed, a few hours before reaching Swatow, large flocks of this bird sitting on the water.

† 275. *SCOLOPAX RUSTICULA*, Linn. [681.]

The Woodcock is rare in the Foochow district, but a few are shot there every winter by foreigners. It is very scarce indeed on the Swatow hills. I have heard of one or two having been shot on the hills beyond Chao-chow-fu; and one

was shot at the end of February 1889 by my shooting-boy in the Taiyang country.

276. *GALLINAGO SCOLOPACINA*, Bp. [685.]

This is the winter Snipe of Foochow and Swatow. It is more abundant in the latter district, especially during the spring migration.

277. *GALLINAGO STENURA* (Bp.). [684.]

This Snipe is tolerably abundant at Foochow in the spring. It returns towards the middle or end of August, and is common throughout the autumn, a few wintering in the district. It winters at Swatow, but does not seem to be particularly common there.

278. *GALLINAGO MEGALA*, Swinh. [683.]

Arrives at Foochow towards the end of March and remains till the beginning of May. The autumn passage begins about the middle of August, and the birds are fairly abundant throughout September and part of October. At Swatow, strange to say, this Snipe is almost unknown. I only saw one during the two years that I spent at that port; it was shot in April by my shooting-boy some distance up the Keyong River.

279. *RHYNCHÆA CAPENSIS* (Linn.). [687.]

Resident and fairly common in the Foochow district. It also occurs near Swatow, but less commonly, I believe.

280. *TRINGA CRASSIROSTRIS*, T. & S. [671.]

Several obtained on the Foochow coast in September and October.

281. *TRINGA CANUTUS* (Linn.). [672.]

I only saw six specimens of the Knot during the whole time that I was at Foochow. They were shot at the beginning of November.

282. *TRINGA CINCLUS* (Linn.). [675.]

Foochow and Swatow in winter; very abundant.

One in partial breeding-plumage was shot on the Foochow coast at the beginning of August.

† 283. *TRINGA SUBARCUATA*, Gouldenst. [677.]

Passes Foochow in April, May, and beginning of June. I obtained a specimen at the beginning of August, but did not notice any later on in the season.

284. *TRINGA ACUMINATA* (Horsf.). [673.]

Very abundant on marshy land at Foochow during April and May.

† 285. *TRINGA RUFICOLLIS*, Pall. [676.]

Passes the Foochow district in April and May, and is very abundant. It returns in September. I saw large flocks on the coast at the end of September; those shot were all in winter plumage.

† 286. *TRINGA SUBMINUTA*, Midd.

Obtained at Foochow in April. It does not appear to be abundant.

This Stint may be distinguished from the preceding species, when fresh, by the colour of the legs (which is olive-green), and always by its long hind toe.

† 287. *TRINGA TEMMINCKI*, Leisl. [678.]

Foochow and Swatow in winter. Rather scarce.

† 288. *TRINGA PLATYRHYNCHA*, Temm. [674.]

I saw large flocks of this Wader on the Foochow coast in September. They remain rather late, as I obtained specimens in November.

† 289. *CALIDRIS ARENARIA* (Linn.). [670.]

Foochow coast in autumn from the end of August, and Swatow coast in winter.

290. *TRINGOIDES HYPOLEUCUS* (Linn.). [669.]

Resident and common in the Foochow district, and also most probably at Swatow, but I do not remember seeing the bird in summer at that port.

291. *EURYNORHYNCHUS PYGMEUS* (Linn.). [679.]

The Spoonbill Sandpiper seems to be a regular autumn migrant on the Foochow coast, but it is not abundant. I obtained specimens at the end of September, in October, and in November.

292. *TOTANUS GLOTTIS* (Linn.). [662.]

Very common at Foochow from the early autumn to the late spring, and likewise at Swatow throughout the winter.

293. *TOTANUS FUSCUS* (Linn.). [664.]

Obtained at Foochow in October, November, February, and on the 18th of April. It is not a common Sandpiper in the district.

+ 294. *TOTANUS CALIDRIS* (Linn.). [665.]

Not particularly common at Foochow. I obtained specimens in that district in May, September, and October. At Swatow it is extremely abundant, and passes in March and April and in the autumn.

295. *TOTANUS GLAREOLA* (Linn.). [666.]

Abundant in March and April on the paddy-fields about Foochow ; it passes again in September and October. It is also common in spring on the Swatow marshes.

+ 296. *TOTANUS OCHROPUS* (Linn.). [667.]

Common in winter at Foochow and Swatow. Arrives at Foochow at the beginning of September.

297. *TOTANUS INCANUS* (Gm.). [668.]

Uncommon, both at Foochow and at Swatow. I obtained it at Foochow from the end of August to the middle of October, and at Swatow on the 12th September.

298. *TEREKIA CINEREA* (Güldenst.). [659.]

Passes along the Foochow coast from the beginning of August to the end of October.

299. *LIMOSA UROPYGIALIS*, Gould. [657.]

A solitary specimen shot on the Swatow coast on 2nd January.

300. *LIMOSA MELANUROIDES*, Gould. [658.]

Obtained on the Foochow coast at the end of August and beginning of September.

301. *EREUNETES TACZANOWSKII* (Verr.). [680.]

One shot on the sands, Foochow coast, on 22nd Sep-

tember; it was in company with a flock of *Tringa crassirostris* and other Stints.

302. NUMENIUS LINEATUS, Cuv. [654.]

Very abundant at Foochow and Swatow throughout the winter.

+ 303. NUMENIUS CYANOPUS, Vieill. [655.]

One obtained at Foochow on 22nd October. I saw two at Swatow in the spring of 1887.

304. NUMENIUS VARIEGATUS, Scop. [653.]

Passes Foochow in April and May and again during the autumn migration from the end of July. It is also common about Swatow in spring and autumn.

305. NUMENIUS MINUTUS, Gould. [656.]

Passes Foochow in the latter half of April, and also in the autumn, as I shot one on the coast on the 22nd of September. According to the native wildfowlers, it is common during the spring passage.

## XI. TUBINARES.

+ 306. DIOMEDEA ALBATRUS, Pall. [744.]

Several examples of this species were shot on the Foochow coast by wildfowlers in the spring of 1887.

In March 1889 I saw a great many Albatrosses, both dark brown and white, off the coast between Swatow and Amoy.

## XII. GAVIÆ.

+ 307. LARUS CANUS, Linn. [747.]

Common on the Foochow coast and at Swatow in winter.

308. LARUS CRASSIROSTRIS, Vieill. [749.]

Abundant and resident on the Foochow and Swatow coasts.

+ 309. LARUS CACHINNANS, Pall. [750.]

Foochow and Swatow coasts in winter and spring. I shot a large Gull on the Swatow coast at the beginning of June which I took to be of this species. I unfortunately allowed the skin to be spoiled and did not get it identified. As far as I



can remember the bird appeared to be immature; the upper parts were extremely pale, and the plumage was much worn.

310. *LARUS RIDIBUNDUS*, Linn. [752.]

Foochow and Swatow during the cool season. Very abundant at the latter port in spring.

311. *LARUS SAUNDERSI* (Swinh.). [754.]

One in summer dress obtained at Foochow on 17th March and two in winter plumage on 21st November. It is scarce in the district. It is common at Swatow in the spring. I shot specimens there in winter and summer plumage on 13th March.

312. *SYLOCHELIDON CASPIA* (Pall.). [755.]

I noticed this Tern on the Foochow coast in September, and obtained specimens in November. It is common at Swatow, where it may be seen all the year round. I saw large flocks on the coast near Namoa Island in winter.

313. *THALASSEUS BERGII* (Licht.). [756.]

Foochow and Swatow coasts in summer. Not abundant.

314. *HYDROCHELIDON LEUCOPTERA* (Schinz). [758.]

Foochow in May. Seen at Swatow in March and April.

315. *HYDROCHELIDON HYBRIDA* (Pall.). [757.]

Foochow in May.

316. *STERNA ANGLICA*, Mont.

Obtained at Foochow in April, May, September, and November, and at Swatow in May and September. It is not uncommon, especially at Swatow.

317. *STERNA FLUVIATILIS*, Naum. [759.]

Very abundant on the Swatow coast in summer. It breeds on the rocky islets in company with *Sterna melanauchen*, and leaves at the end of the warm season.

I believe that this species also occurs in summer on the Foochow coast.

+ 318. *STERNA LONGIPENNIS*, Nordm. [760.]

Some immature Terns obtained at Foochow and Swatow at the end of summer are probably of this species.

This Tern breeds in the marshy flats near Yingtze (Newchwang), South Manchuria.

319. *STERNA MELANAUCHEN*, Temm. [761.]

This Tern is very abundant on the Swatow coast during the warm season, breeding in colonies on the rocky islets outside the Swatow bay.

+ 320. *STERNULA SINENSIS*, Gm. [762.]

Also a summer visitant to Swatow. I found small colonies breeding on the sands at the entrance of the bay, and obtained eggs in June and at the beginning of July, as well as a young bird in down, just out of the egg, which I reared and kept for about six weeks, feeding it on small fishes. The nests were simply little round hollows in the sand with a few twigs or sticks in them.

I obtained this Tern at Foochow in May, at the end of August, and in September.

## XIII. PYGOPODES.

— 321. *COLYMBUS SEPTENTRIONALIS*, Linn. [737.]

A winter bird at Foochow and Swatow. It seems especially common in the latter district.

— 322. *PODICEPS CRISTATUS* (Linn.). [741.]

Obtained at Foochow in the early spring. I believe that I saw one on the coast near Swatow in January.

323. *PODICEPS CORNUTUS* (Gm.). [740.]

Foochow in winter.

324. *PODICEPS NIGRICOLLIS* (Brehm). [739.]

Shot at Foochow in November, at Swatow in early spring.

+ 325. *TACHYBAPTES FLUVIATILIS* (Tunstall). [738.]

Abundant at Foochow and Swatow throughout the winter. I shot one near Foochow as late as 13th May.

XLI. *On the Birds of East Prussia.*

By ERNST HARTERT.—Part II.

[Concluded from p. 372.]

## MICROPUS APUS (L.).

Common. Arrives in East Prussia later than in Western Germany. In the vast forests of the south-eastern parts they are often found breeding in hollow trees.

## CAPRIMULGUS EUROPÆUS, L.

Common, breeding all over the province.

## GECINUS VIRIDIS (L.).

Commonly breeding ; eggs taken in May. Eastern specimens seem to have larger bills as a rule, but I have not sufficient material at hand to make out whether this is constant or not.

## GECINUS CANUS (Gm.).

This Woodpecker, which is so common in Hesse and other parts of Germany, is extremely rare in Prussia. I have only seen one, killed near Blandau in December 1877.

## DENDROCOPUS MAJOR (L.).

Very numerous everywhere. As a rule the bills of East-Prussian specimens are rather strong.

## DENDROCOPUS MEDIUS (L.).

By no means rare in the woods, but not found everywhere.

## DENDROCOPUS MINOR (L.).

Is found in many localities, except in the vast pine-forests, but is rare.

## DENDROCOPUS LEUCONOTUS (Bechst.).

Very rare, and only observed in the vast pine-forests of the south-east. As it is no doubt a stationary bird, it must necessarily breed in East Prussia.

## PICUS MARTIUS, L.

The Great Black Woodpecker is still rather numerous in the great forests of East Prussia. It makes its large nest-

holes chiefly in old pine-trees, but I have found them also in oaks, *Populus tremula*, and *Alnus glutinosa*. The eggs are laid in the middle of April.

LYNX TORQUILLA, L.

Rather common. Eggs generally not found much before June.

MEROPS APIASTER, L.

Has occurred as a straggler in East Prussia. Two specimens shot in Samland are in the Königsberg Museum. Klein has also mentioned the Bee-eater as occurring in Prussia.

ALCEDO ISPIDA, L.

The Kingfisher is rather rare, and nowhere so common as in the western parts of Germany.

CORACIAS GARRULA, L.

Not rare in suitable localities, arriving from the end of April to nearly the middle of May. Its food consists chiefly of beetles, such as species of *Geotrupes*, *Melolontha*, *Prionus*, and others, but especially of different species of *Geotrupes*. The *Scarabæidæ* of the genus *Copris*, and other genera allied to *Geotrupes*, *Copris*, &c., are the principal food of all Coraciidæ. I have dissected the stomachs of several species of *Coracias* and of *Eurystomus afer* in Africa, as also of *Eurystomus orientalis*, *Coracias indica* and *affinis* in India, and I have always found them containing a similar food.

UPUPA EPOPS, L.

Not rare.

CUCULUS CANORUS, L.

Common. Does not arrive before the 20th of April.

STRIX FLAMMEA, L.

Not rare. Generally breeds in spring, chiefly in May, but occasionally in autumn. Several such occurrences have been published, one of the first, if not the first of all, by Graf Roedern in the J. f. O. I once found nestlings on the 6th of November not far from Königsberg.

## GLAUCIDIUM PASSERINUM, L.

Very rare, but has been shot at different times of the year. As this Owl is a stationary bird all the year round, there can be no doubt that it breeds in East Prussia, although I cannot prove the fact. It has no doubt been commoner in times past, when old trees were more numerous than nowadays.

## GLAUCIDIUM NOCTUA (Retz.).

I unite the genera *Carine* and *Glaucidium* into one genus because there are many foreign species in which the characters used to separate them are not easily recognizable.

The present species is not very common in Prussia, but well known. I once found a nest in a hole of a river-bank. Eggs are laid in the middle of May.

## NYCTALA TENGMALMI (Gm.).

This Owl has been shot in several months of the year. As it seems to be a resident bird all the year round, it probably breeds within the limits of North-eastern Germany, but this has not yet been proved.

## SURNIA ULULA (L.).

Chiefly observed in October. Very rare in many years, but common in others. In all probability it has been a regular breeder in North-eastern Prussia in times past. In our days this must occur very seldom, although it may do so sometimes. This Owl breeds in the Russian Baltic provinces, not very far from East Prussia.

## NYCTEA SCANDIACA (L.).

Occurs every winter in East Prussia; it is generally very rare, but sometimes rather numerous. According to Brehm ('Thierleben'), it was found breeding in 1843 in the district of Ragnit.

## SYRNIUM URALENSE (Pall.).

This rare Owl breeds regularly in some of the north-eastern forests of East Prussia. The eggs are deposited in the nests of Buzzards and other larger birds of prey or in hollow trees. The eggs are laid in April, mostly in the first half of the month. The cry of the male is similar to the loud



barking of a large dog ; that of the female is an unmelodious screech. (Cf. Schmidt, J. f. O. 1885, p. 82 ; Hartert, 'Feinde der Jagd,' p. 81 (1885) ; id. Mitth. orn. Ver. Wien, 1887.)

*SYRNIUM LAPPONICUM* (Retz.).

Has been killed, in 1832, in the district of Gumbinnen. It is of very rare occurrence in the eastern parts of Germany.

*SYRNIUM ALUCO* (L.).

Common.

*ASIO ACCIPITRINUS* (Pall.).

Extremely common during its migration, especially in October, less numerous in spring. It undoubtedly breeds regularly in East Prussia, but in very small numbers.

*ASIO OTUS* (L.).

Breeds in East Prussia, but is more numerous during migration. The eggs, which are always deposited in old nests of Crows or other birds, are usually found in April, but the time when they are laid is very uncertain. They are sometimes found rather late in May, sometimes early in April or even in March.

*BUBO BUBO* (L.).

Is absent from many parts of the pine-forests of the south-east, but not rare in the north-eastern parts. The eggs are sometimes deposited on the ground, but usually in old nests of the larger birds of prey. The young birds are often reared by the foresters and sold for use in the "Krähenhütte," to attract the crows, ravens, and birds of prey—an interesting sport much in favour in many parts of Germany.

*FALCO PEREGRINUS*, L.

A regular breeder in all the pine-forests of larger size, rarer in other woods. It arrives at its breeding-places early in March, and I have found an egg in the last days of March, but the clutch is generally not ready before April. As rocks are entirely absent from East Prussia, the Peregrine always breeds in trees, almost always in pines. The eggs are usually

three in number, but in East Prussia four are often found. According to my observations the male assists the female in incubation.

*FALCO ÆSALON*, Tunst.

Not very rare during the migration-period, chiefly in October. I did not meet with it in the middle of the winter.

*FALCO SUBBUTEO*, L.

Rather scarce. Breeds very late, eggs not being found before the middle of June.

*CERCHNEIS TINNUNCULUS* (L.).

Very common. Exceptionally a pair remains during the winter, then frequenting old towers or castles.

*CERCHNEIS VESPERTINA* (L.).

Generally a rare visitor during migration, but sometimes occurring in quantities. In September 1887 great numbers passed through East Prussia. I saw at least a hundred myself, and specimens were obtained in many parts of East Prussia. All those that I observed were in young plumage; not a single old bird was obtained or seen, so far as I could make out. In the following spring, on the 9th and 10th of May, I saw a troop of five old females and one male, but they remained a few days only and did not breed. In 1884 I saw a pair late in May and during the first days of June, but they also did not breed there. Probably this species passes through much more frequently than it is supposed to do.

*PANDION HALIAËTUS* (L.).

Not rare in many suitable localities, but not found everywhere. Eggs are laid in the second half of May.

*PERNIS APIVORUS* (L.).

A somewhat rare bird in East Prussia, but breeds regularly.

*MILVUS MILVUS* (L.).

Not rare. Arrives in March and lays its eggs in April and May. If possible it takes an old nest of another bird,

but if it does not succeed in finding one it builds a new nest of rather small size, which being used for many subsequent years grows by-and-by into a very large "horst."

*MILVUS MIGRANS* (Bodd.).

Commoner than the former in watery districts, especially near the Frische Haff, in the districts of Johannisburg, Sensburg, Allenstein, Lötzen, and others. Returns at the end of March or in April. The breeding-time varies much, but the eggs are generally laid much later than those of *Milvus milvus*. This species, as well as the last-named, is extremely fond of lining the nest with coloured rags and papers, often not in the best and cleanest condition.

*BUTEO BUTEO* (L.).

The Buzzard is extremely common. I have found full clutches of eggs at the end of March, but generally they are not full before April. It seems likely that *Buteo desertorum* occurs as an accidental straggler, but supposed specimens of it should always be examined by an experienced ornithologist.

*ARCHIBUTEO LAGOPUS* (Brünn.).

Very numerous from October to April, especially in more open districts. Seems to avoid the interior of large forests. This bird is a Buzzard, and by no means an Eagle. All its movements, its bill and feet, are those of a true Buzzard. Even at a distance when gliding through the air it can be recognized as a Buzzard by the wings being held above the horizontal line.

*HALIAËTUS ALBICILLA* (L.).

Often seen on the coasts in winter, but also still breeds occasionally.

*AQUILA CHRYSAËTUS* (L.).

Often shot in winter, rarely in summer. There can be little doubt that even at the present day a few pairs breed here and there in the large forests of the eastern parts of the province, but it is everywhere vigorously persecuted by the forester's gun.

*AQUILA POMARINA*, Brehm.

As regards the name of this Eagle, I think that "*nævia*,"

*maculata*, and the other older names are more or less doubtful, and that we do best to accept Brehm's term, which doubtless refers to the small North-German form.

This Eagle is found everywhere in the greater forests of East Prussia, and is one of the commonest birds of prey.

It arrives at the beginning of April. Eggs are laid in East Prussia from the first days of May until the middle of the month, and sometimes later. The number of eggs is mostly two, but very often one only is found. It has been stated that this bird occasionally lays three eggs, but I have never found more than two.

The large nest is placed on different kinds of trees, on pines and firs as well as on oaks and other foliaged trees, generally not very high above the ground.

AQUILA CLANGA, Pall.

The Larger Spotted Eagle is of very rare occurrence in East Prussia, but specimens have been procured from time to time, and it breeds exceptionally in the province.

CIRCAËTUS GALLICUS (Gm.).

This bird is rare in East Prussia, but it breeds regularly in different parts of the province, especially in the south-eastern district, where lakes abound.

ACCIPITER NISUS (L.).

A permanent resident.

ASTUR PALUMBARIUS (L.).

Found during the whole year, but less common than the last species.

CIRCUS SWAINSONI, Smith.

Often shot on migration in autumn; in most years very rare, but rather numerous in 1890 and less so in 1891.

CIRCUS CYANEUS (L.).

More numerous, and especially in September. Breeds in small numbers.

CIRCUS CINERACEUS (Mont.).

This species is rather more frequently met with than *Circus*

*swainsoni*. It apparently breeds occasionally, as I have seen specimens that were shot in summer; but if it breeds it is certainly a rare bird.

CIRCUS ÆRUGINOSUS (L.).

Common in swampy districts.

VULTUR MONACHUS (L.).

A specimen was killed in June 1881. Known as an accidental straggler even more to the north.

GYPS FULVUS (Gm.).

Several times as an accidental straggler. Killed in the spring of 1844, in 1851, and in June 1881.

TURTUR TURTUR (L.).

Generally not rare.

COLUMBA ŒNAS, L.

Generally very common. Arrives late in March or about the middle of that month, and leaves the country in October. It does not winter in East Prussia.

COLUMBA PALUMBUS, L.

In most localities common. It does not winter in this country, but it often does in Western and Southern Germany.

TETRAO BONASIA, L.

Not rare now in many parts of East Prussia, especially in the forests of the east, but is said to have been much more numerous formerly. I have proofs that it was once frequently met with in certain forests where it is not found now.

TETRAO TETRIX, L.

Although still not rare in many forests was no doubt much more numerous in former times.

TETRAO UROGALLUS, L.

Only found in a few large forests. Hybrids between *T. urogallus* and *T. tetrix* have been shot a few times.

LAGOPUS LAGOPUS (L.).

This species was commoner in former times, but became very rare after the drying up and cultivation of the large



moors. At present it is, so far as I could make out, only met with on the great moor in the district of Dingken, and in small numbers. This is the only place in Germany where it occurs.

COTURNIX COTURNIX (L.).

Not numerous in East Prussia.

PERDIX PERDIX (L.).

Common, but suffers much from severe winters.

ARDEA GARZETTA, L.

Two specimens were killed many years ago near Pillau. They are preserved in the Königsberg Museum.

ARDEA PURPUREA, L.

I think Bock's "*Ardea violacea* vel *Ardea rubra*" ('Naturforscher,' 1778) is referable to this species. It may occur as an accidental straggler.

ARDEA CINEREA, L.

Common, breeding in large colonies, but occasionally in single pairs.

ARDEOLA RALLOIDES (Scop.).

May accidentally occur, as it has been killed in West Prussia.

ARDETTA MINUTA (L.).

I have only met with this bird a few times, but it seems to be much less rare than I once believed it to be.

NYCTICORAX NYCTICORAX (L.).

Bock states ('Naturforscher,' 1778) that the Night Heron breeds in Prussia. He received specimens on the 18th of May, 1849. I shot a young bird in the first plumage on the 30th of August, 1880, near Pillau.

BOTAURUS STELLARIS (L.).

Common during migration, but also found breeding in many localities. I have taken eggs in the middle of May.

CICONIA CICONIA (L.).

Common and breeding.

*CICONIA NIGRA*, L.

By no means rare, although not found everywhere. Nowhere else in Germany so numerous as in East Prussia.

*PLATALEA LEUCORODIA*, L.

Has been killed several times. Bock states that a specimen was shot in 1719 near Angerburg. In 1822 a pair were shot at Königsberg.

*SYRRHAPTES PARADOXUS* (Pall.).

During the two well-known invasions many specimens of this bird were observed and killed in East Prussia.

*FULICA ATRA*, L.

Extremely common on the Haffs and on some of the greater lakes, and apparently becoming more and more frequent on the smaller waters in several places.

*GALLINULA CHLOROPUS* (L.).

Very common on the smaller ponds and backwaters of rivers. It does not remain during the winter, as it often does in Western Germany.

*ORTYGOMETRA PORZANA* (L.).

Common. I have found a full clutch of 13 eggs as early as the 10th of May.

*ORTYGOMETRA PARVA* (Scop.).

Specimens are seldom procured, but these birds are, no doubt, much more numerous than they are supposed to be. If there were more ornithologists to search for such birds, probably *O. bailloni* would be found also.

*CREX CREX*, L.

Common.

*RALLUS AQUATICUS*, L.

Breeds regularly, but not in great numbers, and is very locally distributed.

*GRUS GRUS* (L.).

Breeds in many suitable localities.

*OTIS TETRAX*, L.

Has been shot as a straggler.

## OTIS TARDA, L.

Is still found breeding in the "Werder" between Danzig and Marienburg, but I do not know whether this is the case in East Prussia at present. In times past it nested in many places, and not long ago one was shot.

## SCOLOPAX RUSTICULA, L.

Numerous on migration, especially in autumn. Found breeding in many localities. Occasionally some are seen in the middle of winter, in December and January.

## GALLINAGO GALLINAGO (L.).

Commonly breeding and very numerous on migration.

## GALLINAGO GALLINULA, L.

Occurs commonly during migration, but I do not know of its breeding in recent times.

## GALLINAGO MAJOR (Gm.).

Passes through in great numbers and breeds in some places in the north-eastern parts. I found it breeding in the district of Darkehmen.

## NUMENIUS PHÆOPUS (L.).

Of very rare occurrence on the coast.

## NUMENIUS ARQUATA (L.).

Passes through in great numbers. I have not found its eggs, but it is said to breed in the north-east.

## LIMOSA ÆGOCEPHALA (L.).

Not rare on passage. Not long ago it bred regularly in the district of Labiau, and probably still breeds there.

## LIMOSA LAPPONICA (L.).

Fairly common on passage on the sea-coasts and on the Haffs.

## PHILOMACHUS PUGNAX (L.).

Found breeding here and there, and passes through in great numbers.

## TOTANUS HYPOLEUCUS (L.).

Very numerous on passage. Breeds in many places. Eggs may be found at the end of May.

*TOTANUS GLAREOLA* (Gm.).

Common during migration, but breeds in a few localities only.

*TOTANUS OCHROPUS* (L.).

Breeds in many forests.

*TOTANUS CALIDRIS*, L.

I did not find this species breeding, but it is common on passage.

*TOTANUS FUSCUS* (L.).

Of rather rare occurrence in autumn.

*TOTANUS LITTOREUS* (L.).

Common on passage, chiefly in autumn.

*TOTANUS STAGNATILIS*, Bechst.

This Eastern species was shot near Königsberg in May 1863. It has been recorded from Prussia in May 1844 (Bock, Bericht Privatschule, 1845).

*TRINGA MINUTA*, Leisl.

Common in autumn.

*TRINGA TEMMINCKI*, Leisl.

Seems to be rare in Prussia. The only occurrence of which I know is that of six young birds on the 21st of August, 1882, of which I shot two.

*TRINGA SUBARCUATA* (Güld.).

On the coasts during migration in summer and autumn, but rather scarce.

*TRINGA ALPINA*, L.

Very common during migration.

*TRINGA CANUTUS*, L.

Not rare on migration.

*TRINGA MARITIMA*, Brünn.

This species has never been recorded from East Prussia. A female killed in West Prussia, in February 1850, is now in the Museum at Danzig.

**CALIDRIS ARENARIA (L.).**

Very numerous in autumn along the sea-coast.

**PHALAROPUS LOBATUS (L.).**

Several times procured and observed on the Frische Haff, chiefly in September.

**RECURVIROSTRA AVOCETTA, L.**

Of very rare and irregular occurrence.

**ÆDICNEMUS ÆDICNEMUS (L.).**

I did not meet with this species in East Prussia, but it doubtless occurs there occasionally. It has been procured several times in West Prussia. It has been found breeding near Thorn (W. Prussia), and was shot near Riesenbergr in June 1889.

**VANELLUS VANELLUS (L.).**

Common.

**CHARADRIUS DUBIUS, Scop.**

Breeds rather commonly.

**CHARADRIUS ALEXANDRINUS, L.**

I did not meet with this species, but Herr Lindner informs me that the Museum of Königsberg possesses a specimen that was shot in the province.

**CHARADRIUS HIATICULA, L.**

Common during migration.

**CHARADRIUS MORINELLUS, L.**

Passes through in autumn, according to the late E. von Homeyer and Herr Lindner (*in litt.*). I did not meet with it, but it has been recorded by Bock.

**CHARADRIUS PLUVIALIS, L.**

Not rare on passage. I never met with it during the breeding-season, but Herr Kuwert states that it has been found breeding on his ground (Lindner, *in litt.*)

**CHARADRIUS SQUATAROLA (L.).**

Not uncommon during migration.



*ARENARIA INTERPRES* (L.).

Not common on migration in autumn.

*HÆMATOPUS OSTRALEGUS*, L.

Very rare on migration.

*CYGNUS OLOR* (Gm.).

Breeds in small numbers on some of the greater lakes. The "*Anas cygnus*" of Bock ('Naturforscher,' 1778) is not the *Anas cygnus* of Linnæus, but *Cygnus olor*.

*CYGNUS CYGNUS* (L.).

Numerous in spring and autumn, sometimes in the midst of winter.

*ANSER FINMARCHICUS*, Gunn.

I once saw a specimen in the hands of a bird-stuffer, which I believed to belong to this species, but I could not find it again for re-examination.

*ANSER SEGETUM* (Gm.).

Passes through in great numbers, chiefly in October and March.

*ANSER ARVENSIS*, Brehm.

I saw two specimens, killed near Königsberg in 1881, which quite agreed with the description of this form.

*ANSER ANSER* (L.).

Passes through early in autumn and in spring, but is much less numerous than *Anser segetum*. I do not know of its breeding in East Prussia at the present time.

*ANSER ALBIFRONS* (Scop.).

Rather rare on the Baltic Sea and on the Haffs late in autumn.

*BRANTA LEUCOPSIS* (Bechst.).

Rare on the sea-coast and on the Kurische Haff.

*BRANTA BERNICLA* (L.).

Not rare on the sea-coast, and occasionally found in the interior.

## TADORNA TADORNA (L.).

Has been shot occasionally near the coast.

## ANAS CRECCA, L.

Breeds regularly in East Prussia, but in small numbers. It is found on small waters inland.

## ANAS QUERQUEDULA, L.

Breeds in great numbers on the Haffs, but does not occur in winter.

## ANAS STREPERA, L.

Not rare as a breeder on some of the lakes of the southern parts. Occurs also on passage. I found clutches in the second half of May, and even before that time.

## ANAS PENELOPE, L.

Common on passage, but breeds in very small numbers only.

## ANAS ACUTA, L.

Passes through on migration and breeds on some of the lakes.

## ANAS BOSCHAS, L.

Very common. A few are seen also in winter.

## SPATULA CLYPEATA (L.).

Breeds in small numbers.

## FULIGULA FULIGULA (L.).

Not rare in winter.

## FULIGULA MARILA (L.).

In winter, but not very common, and only on the sea-coast.

## FULIGULA CLANGULA (L.).

Common in winter. Breeds commonly in the southern and eastern parts in hollow trees, mostly high above the ground.

## FULIGULA FERINA (L.).

Not rare on passage, and regularly breeds on some of the lakes. Eggs laid in the second half of May.

*FULIGULA NYROCA* (Göld.).

Not uncommon in summer. Eggs to be found in the middle of May.

*FULIGULA RUFINA* (Pall.).

A male and a female in the Königsberg Museum are stated to have been killed in the province.

*CLANGULA GLAUCION* (L.).

In immense numbers frequenting the sea-coast and the Haffs during the winter.

*HENICONETTA STELLERI* (Pall.).

This beautiful Duck was not very rare some time ago, especially from 1840 to 1850, and many were shot near Pillau and some near Danzig, but only on the sea. I have not been able to ascertain its occurrence within the last 25 years.

*SOMATERIA MOLLISSIMA* (L.).

A few may be observed every winter. An adult female was shot in August 1887 near Pillau.

*ÆDEMA NIGRA* (L.).

*ÆDEMA FUSCA* (L.).

Both these species are not rare on the sea and the Haffs during the winter; the latter is somewhat the more common.

*MERGUS MERGANSER*, L.

This species is found in East Prussia during the winter, and breeds plentifully in the southern and eastern parts. The eggs are deposited in large hollow trees, and are laid from the end of April until the middle of May.

*MERGUS SERRATOR*, L.

This species, too, breeds in East Prussia, but is not so numerous as the last-mentioned. The eggs are deposited on the grassy islands, not in hollow trees.

*MERGUS ALBELLUS*, L.

Not rare during the winter until April.

*PELECANUS ONOCROTALUS*, L.

A specimen, of which a picture is in the Museum of Königsberg, was killed near Johannisburg in 1608.

## PHALACROCORAX CARBO (L.).

I think that Bock's *Anas arborea*, as well as his *Pelecanus graculus*, is referable to this species. At present there are several large colonies of Cormorants in East Prussia. In 1884 I found a single nest on an island in the Kissain lake.

## HYDROCHELIDON NIGRA (L.).

Common, and breeds in several localities.

## HYDROCHELIDON LEUCOPTERA (Schinz).

In May 1882 an adult specimen was shot near Johannisburg.

## STERNA MINUTA, L.

Löffler records the occurrence of this Tern in East Prussia, but I did not see it anywhere.

## STERNA HIRUNDO, L.

Breeds in many places.

## STERNA CASPIA, Pall.

I saw a single specimen of this Tern in September 1882 among a lot of *Sterna hirundo*, but could not shoot it.

## RISSA TRIDACTYLA (L.).

Obtained several times near Pillau in winter.

## LARUS MINUTUS, Pall.

This pretty little Gull is not rare in autumn. I shot it in the first plumage early in August, and late in November in full winter plumage. Many years ago it was found breeding not far from Danzig, and I have always suspected that it still breeds somewhere in the most north-eastern part of Germany. This becomes more probable since Herr Lindner observed it on the Kurische Nehrung in 1890 during the breeding-season.

## LARUS RIDIBUNDUS, L.

Breeds in large colonies.

## LARUS CANUS, L.

Common along the coast during the winter.

*LARUS FUSCUS*, L.

Common along the coast during the winter.

*LARUS MARINUS*, L.

Not rare on the sea in winter, but much rarer than *L. fuscus*.

*LARUS ARGENTATUS*, Brünn.

Not rare in winter, but apparently does not breed in this country.

*LARUS GLAUCUS*, Brünn.

Extremely rare. A specimen was killed on the coast in the winter of 1882, which I have examined.

*LARUS LEUCOPTERUS*, Faber.

A young specimen was killed long ago near Pillau.

*STERCORARIUS PARASITICUS* (L.).

Not common along the coast in winter, somewhat less rare in October.

*STERCORARIUS POMATORHINUS* (Temm.).

Very rare. A specimen shot near Pillau.

*PODICEPS FLUVIATILIS*, Tunst.

Not rare in summer on small ponds.

*PODICEPS NIGRICOLLIS* (Brehm).

Breeds on some lakes, especially in the eastern parts. As a rule many nests are placed close together.

*PODICEPS AURITUS*, L.

Has been shot a few times on passage, but does not breed.

*PODICEPS GRISEIGENA*, Bodd.

This species has been recorded as breeding in East Prussia by Rathke and others. I did not find it in summer, but it has been shot occasionally on passage.

*PODICEPS CRISTATUS*, L.

Breeds in large colonies on the Haffs and many lakes. Generally many nests are near together, but occasionally a single pair inhabits a lake or pond.



## COLYMBUS SEPTENTRIONALIS, L.

Common on the sea in winter.

## COLYMBUS ARCTICUS (L.).

This species is not rare in winter. Several adult specimens have been seen and procured in summer during the breeding-time, and therefore it seems very probable that this species occasionally nests within the limits of North-eastern Germany. Bock (1778) says that "*Anser colymbus*" has been caught near Friedrichstein in June; he, no doubt, refers to the present species. It has been observed several times on lakes in Pomerania, and I shot an adult female on the 29th July on the Frische Haff, which had laid eggs not long before, to judge from the dissection.

## MERGULUS ALLE (L.).

Has been shot a few times on the sea, but is a great rarity for East Prussia.

## URIA GRYLLE (L.).

A regular but not common winter visitor along the coast.

## URIA LOMVIA (L., 1758).

*Uria troile*, L.

Has been shot near Danzig, but not, so far as I know, on the East Prussian coast.

## ALCA TORDA, L.

Not very rare in winter on the Baltic Sea and on the Haffs.

XLII.—On a little-known Species of Lark, of the  
Genus *Otocorys*. By ERNST HARTERT.

(Plate XIII.)

WHEN preparing the Catalogue of the Birds of the Senckenberg Museum at Frankfurt-a.-M., I found in the Collection a stuffed specimen of a Lark, no doubt belonging to the genus *Otocorys*. As it was of an entirely unknown

species, I briefly described it in the 'Journal für Ornithologie' under the name of *Otocorys berlepschi*, calling it after my friend Freiherr Hans von Berlepsch. In my Catalogue of the Birds in the above-named Museum I gave a more careful description of it.

This species, however, is so interesting that I wish to introduce it again to the notice of English ornithologists by the accompanying figure, which has been prepared by Mr. Keulemans from a water-colour drawing of the specimen: I add a short description of it.

OTOCORYS BERLEPSCHI. (Plate XIII.)

*Otocorys berlepschi*, Hartert, J. f. O. 1890, p. 103 ; id. Cat. B. Senckenb. Mus. p. 37.

Top and sides of the head, chin, throat, and upper breast black, with a faint purplish gloss ; ear-coverts tipped with pale brown ; occiput, hind neck, interscapular region, smaller upper wing-coverts, and tail-coverts bright vinaceous cinnamon ; outer and inner webs of all the quills brown, faintly margined and tipped with brownish grey ; tail dark brown, central pair and outer webs of lateral rectrices paler brown ; lower parts bright vinaceous cinnamon, spotted with brown on the breast and whitish along the middle of the abdomen. Total length about 6·5 inches, wing 4·15, tail 2·8, culmen 0·46, tarsus 0·8. The bill is of the somewhat acute form of that of *Otocorys bilopha*.

A slip of paper was attached to the stand of the specimen with the words "*Alauda?* Caffraria." This is a somewhat uncertain locality, but I think it is most probable that the bird came from the interior of South Africa, from which we still receive many entirely new forms.

A somewhat bright rufous coloration is exhibited in the other southern species of Horned Larks.

The entirely black throat and breast, the brown outer web of the first primary, which is white in all the other species of *Otocorys*, and the rather rufous colour of the upper and under tail-coverts are the most characteristic features of this species, on which further information would be very acceptable.

XLIII.—*On a case of a Cuckoo and a Swallow being reared in the same Nest.* By the Rev. CHARLES WOLLEY-DOD.

EDGE HALL is twelve miles south of Chester, and in its garden small birds have a good time, as cats and bird-nesting boys are carefully prohibited. Their worst enemies appear to be Jays, which hunt for their nests early, before anyone is about, and carry off the young birds. Nevertheless, the numbers of Pied Wagtails, Spotted Flycatchers, and Swallows seem yearly to increase. The garden is a favourite resort for Cuckoos, and a young Cuckoo generally occupies at least one of the Wagtail's nests, and appears on the lawn in due time, waited upon by the old birds. I have often watched to see whether more than one pair of birds took part in the feeding, but I never could make out that it was so.

About midsummer this year my gardener came to tell me that he had found a young Cuckoo dead in a Wagtail's nest, built in a wall close to the back door of my house. He passed the nest at least a dozen times a day, and had missed seeing the old birds within twenty-four hours. I found the young Cuckoo, about a week old, and of course the sole occupant of the nest. It was plump, and bore no outward sign of injury, and had not been dead many hours. My man was sure that the Wagtails had learnt wisdom by experience, and that when they found what it was they were rearing they had deserted it. But this was rather slender evidence of desertion, and this young bird's fate must remain a mystery. About two days later, it was on the morning of the twenty-second of June, my gardener told me that there was a young Cuckoo in a Swallow's nest in the potting-shed. The "coin of vantage" chosen by these particular Swallows to build in must be fully described in order to understand what follows. The potting-shed, about thirty feet long and eight wide, is a lean-to shed outside the wall of the kitchen garden, with another cross-wall at one end. The other end and half the side on which it is entered are boarded or glazed, leaving open about fifteen feet in length and six in height. The eaves of the iron roof rest upon a horizontal beam, which makes a

sort of ledge inside, between which and the roof is a wedge-shaped cavity, convenient for keeping trowels, hammers, &c., which are held in the angle of the wedge. Amongst other things, the gardener had put there a thin bit of board, just where a rafter comes down and crosses the horizontal beam. On this board, projecting and resting on one side against the rafter, the Swallows had built their nest, two-thirds of which were blocked at the sides and back, and there was access to it only by the concave channel of the corrugated iron roof, which afforded a space of about two inches between the nest and the roof for about one third of its circumference. I do not think it would be possible for a Cuckoo to have got into the nest to lay an egg; how the young bird was intended to get out when full-grown was another difficult problem. However, there the young Cuckoo was, and I judged it to be about a week old; I took it out of the nest to examine it, and it was lively and vigorous, its feathers beginning to grow.

On inquiry I found that about a week before this two broken Swallow's eggs had been noticed beneath the nest. I believe these were afterwards removed by the old Swallows, because I found one of them dropped on the other side of the wall against which the shed leans, and the gardener had not touched the broken eggs; as the Swallows continued to visit the nest he had not thought anything of the incident. I also learnt that about a month before the garden-boy had come upon a Cuckoo sitting on a box in the shed. It flew away, but two hours afterwards was there again. Later in the day I felt in the nest again and discovered that besides the young Cuckoo there were two young Swallows, evidently hatched later, and apparently three or four days younger. I watched for some time to see whether the Cuckoo would make any attempt to eject his companions, but he did not seem to notice them. The next morning I took the nest down to examine it. There was only one young Swallow, the other had disappeared; I suspect it had died and the old birds had carried it away, for I could see no disposition at all in the Cuckoo to interfere with the survivor, which seemed weakly and starved.



On that day, June 23rd, I put another piece of board by the side of the first in the wedge of the roof, and on it I lodged an empty Blackbird's nest, in which I placed the young Cuckoo, leaving the Swallow in its own nest. When the old birds next came, they sat upon a box which hung against the wall just opposite their nest, inside the shed. After twittering there for about ten minutes and taking a survey of the new nest they flew off and returned with food six times in half an hour. I think they fed only the Cuckoo in the Blackbird's nest, neglecting their own nest and progeny. Later in the day, as the little Swallow seemed to be getting cold and starved, I put it with the Cuckoo into the Blackbird's nest. From that time I took down this nest every time I wanted to look at the birds, and replaced it on the board.

The two nestlings lived peaceably together, and both got fed and grew. The Swallow generally had its head visible from under the rear of the Cuckoo's wing. The Cuckoo after a day or two began to resent being touched or looked at, rising up in the nest and making threatening demonstrations, drawing back his head and striking with his beak. His rate of growth was astonishing. I often sat in the corner of the shed and watched the parent birds. When they first saw me there, they generally went and sat up on their favourite box opposite the nest, the first waiting for the arrival of the other, and they appeared on that visit to swallow the food they had brought in their mouths. They then went off together, and one or other came about once in two minutes, flying at once to the nest, though I could not then distinguish which of the two young ones was fed at each visit. The droppings were all carried away from the ledge by the old birds in their beaks, and let fall at some distance from the nest. In one of my inspections I dropped a white feather with which the Swallow's nest had been lined, and at its next visit the old bird picked it up from the ground and carried it away. This made me think that the broken eggs had been removed in the same way.

On the 28th we had a garden-party, and many visitors went



to see the infant prodigy, which was now feathered all over and very fierce, rising up and drawing himself back so as to get a good strike at the intruders. He quite filled the nest, and besides pecking savagely, he opened his wings and stamped his feet about, apparently not from any ill-will to his foster-brother, who, however, did not seem to like such rough behaviour.

On coming the next morning my gardener found that the Blackbird's nest, which had been carelessly replaced on the narrow lath, had fallen six feet to the ground and was lying bottom upwards. The Cuckoo was sitting by the side of it, but the Swallow was beneath it; neither seemed any the worse. A broader piece of board was substituted, and a prop put on each side of the nest, as the Cuckoo now often stood up, and, being big and heavy, might easily overbalance it. Twice on that day I found four Swallows in the shed, and, as there was no other nest there in use, I wondered whether the additional pair had been called in to help in the feeding; it did not prove to be so; still I think their presence was not accidental, but that they had been invited in by the parent birds.

The feedings now became more frequent, and I counted seven visits in ten minutes; both young ones were making satisfactory progress, the Cuckoo always fluttering and striking when approached or handled, but the little Swallow remaining quiet and crouching in the bottom of the nest; it sometimes tried to avoid being trampled upon by clinging to the inside of the nest, with its head over the edge, but it had a rough time of it.

At 9 o'clock in the evening of the 2nd of July, and about the same time on one or two subsequent days, when Swallows had ceased to fly, the old birds were not at the nest or in the shed, and I still wonder where they passed the night. The young Swallow, however, was at that time uppermost in the nest, lying on the Cuckoo's wing, and if there had been any disposition to eject him it could have been done with the greatest ease. The two little Swallows first found, or rather the eggs which produced them, had probably been saved from

ejection by the closeness of the iron roof to the top of the nest, but when they were changed to the Blackbird's nest, and it was placed farther away from the eaves, there was plenty of head-room. However, from first to last the Cuckoo showed no hostility to the little Swallow, though it several times pecked at the parents whilst feeding their own baby.

On the 3rd of July the Cuckoo left the nest and sat in the dark angle behind it. I could now watch the old birds feed both the young ones, and they were beginning to be more attentive to their own. The Cuckoo remained out all that day—greatly, no doubt, to the relief of his companion—but the next morning was in the nest again. He was now nearly full-grown and full-fledged, and, fearing he would trample the Swallow to death, I put it into the original nest, which I put back to nearly its original place, so as to be safe from the invasion of the Cuckoo. This time, so far from neglecting it, the old birds found it and fed it at once; it competed with its companion for their attention, twittering whenever they came with food, whilst the Cuckoo had for some days begun his querulous little squeaking chirp, which was now almost incessant.

About 4 in the afternoon of July 5th the Cuckoo, which had been in and out of the nest several times, stepped upon one of the props which I had put to support the nest and overbalanced it. The prop fell to the ground with a great rattle, but the Cuckoo, with much fluttering, recovered himself. The old birds, both of whom were present, at once showed signs of the wildest alarm; they flew round and round, in and out of the shed, screaming, and dashing at the Cuckoo, whom, I believe they no longer recognized as the nestling they had reared, but took for a Hawk which had just made away with one of their young ones. Anyhow, they fed him no more, but avoided him and approached their own chick by a circuitous route. The Cuckoo now flew from one part of the shed to another, continuing his squeaking note, but the Swallows avoided him, or only made threatening dashes at him. Next morning he was sitting on a fruit-tree outside the shed; but still the Swallows

avoided him, and the alarm was taken up by other Swallows, who mobbed him as they do a Hawk; he flew first into a wellingtonia, followed by a dozen Swallows, then back again over the shed into a large oak, where he sat forty feet up, still followed by screaming Swallows. Soon after he flew down into the kitchen garden, where Blackbirds and Thrushes became noisy and surrounded him, the Thrushes staring inquisitively, the Blackbirds settling above on the wall and keeping up that note of warning which they always raise against a suspected intruder. After that he came and sat upon a garden frame, opposite his native shed, where I was observing the parent birds, and I had an opportunity of watching what took place at a distance of three or four yards. The two old Swallows made frequent dashes at him, approaching first in front and then in the rear, and turning off when within three or four inches of him, making him start every time. (Certain pairs of Swallows in my garden always year after year assail me in the same way if I pass near their nest, coming so close to my face that I can often feel the waft of their wings, and making an audible snap with their beaks when at the nearest point.) From time to time one would fly into the shed and go up to the nest as if to satisfy itself that its remaining little one was still safe. After half an hour of this I felt some compassion for the young Cuckoo, and, catching two or three insects, I went to feed him; but he would not let me come close, but again flew about fifty yards into a clump of thinly furnished spruce, where he sat on a branch about twelve feet from the ground, uttering his querulous chirp incessantly. The Blackbirds discovered him and became noisy again. It was now nearly 1 o'clock and I left him, and never saw him afterwards. I went round the garden to search for it two or three times that afternoon and the next day, and though I should easily have recognized his note, even if the birds had not attracted me by their excitement, I could not find him, nor did my gardener, who was constantly about, see anything of him; whether, when he found that it did not answer to pose as a starving beggar, he determined to work for a livelihood and succeeded, I cannot tell. He

was quite strong and at home on the wing, skimming confidently during his flight, like an old bird, and he might easily have found food, if his instinct taught him how to look for it. There seems to be some uncertainty as to the age at which a young Cuckoo begins to provide for himself, but it is not easy to see what useful experience he gains by watching Wagtails run about the grass coursing flies, or Swallows hawking them in the air; but as long as I saw him he showed no disposition to look for food himself, nor did any bird show any inclination to help him.

As for the young Swallow, the old birds now devoted all their attention to it. For the rest of that day, and the two days which followed, one or both of them were always near the shed, and I am sure that they troubled themselves no more about the monster from the care and fear of which they were now released. The 7th and 8th of July were very stormy, and the young bird sat for most of the time on the edge of the nest, twittering to his parents, who spent much of the day on the box opposite to him; he seemed as well feathered and nearly as big as they were. The morning of the 9th was calm and bright, and when I went to look at the nest at 7 o'clock the young Swallow had flown.

XLIV.—*Remarks on some recently described Extinct Birds of Queensland*\*. By R. LYDEKKER.

IN the four communications cited below, together with an earlier one relating to a bone belonging to the *Dinornithide*, Mr. De Vis has described a number of bird-remains from the superficial deposits of Queensland which are referred to upwards of 27 distinct species. Eight of these are assigned

\* C. W. DE VIS. A Glimpse of the Post-Tertiary Avifauna of Queensland. *Proc. Linn. Soc. N. S. W.* (2) iii. p. 1277 (1888).

——. On the Trail of an Extinct Bird. *Ibid.* vi. p. 117 (1891).

——. Note on an Extinct Eagle. *Ibid.* vi. p. 123 (1891).

——. Residue of the Extinct Birds of Queensland as yet Detected. *Ibid.* vi. p. 437 (1892).





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